

Giant triple coronary artery aneurysms from incomplete Kawasaki disease

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DESCRIPTION

A 23-year-old woman presented with a new-onset 7/10 substernal, non-radiating chest heaviness of 1-day duration. She did not report any familial cardiac disease or sick contacts. Vital signs and cardiovascular examinations were unremarkable. Laboratory parameters revealed borderline troponin-T elevation. ECG demonstrated 3 mm flat ST-segment depressions with T-wave inversions in V₁–V₄ and transthoracic echocardiogram demonstrated left ventricular ejection fraction of 40–45% with inferolateral hypokinesis. Emergent coronary angiogram revealed severe aneurysmal dilation of left main, proximal left anterior descending, left circumflex and proximal right coronary arteries with poor distal run-off (figures 1–3). A diagnosis of Kawasaki disease (KD) was suspected; however, retrospective questioning yielded no fever or history of lymphadenopathy. The patient was medically optimised on aspirin, statins, clopidogrel, nicorandil and isosorbide dinitrate. In view of triple vessel involvement (including left main), surgical intervention was offered. The patient was unable to afford surgery and was subsequently lost to follow-up.

Coronary artery aneurysms (CAA) are usually a consequence of atherosclerotic cardiovascular disease (ASCVD) and are noted during 0.15–4.9% of angiographic series.^{1 2} KD, which is an acute self-limiting vasculitis affecting the tunica media, should be suspected in patients without ASCVD risk factors, and has high mortality.^{1–3} Clinically, patients manifest with ventricular hypokinesis/akinesis due to multiple myocardial infarctions and/or myocarditis.² Angiography may demonstrate CAA,



Figure 2 Anteroposterior cranial view demonstrating aneurysmal dilation of left main, left anterior descending and left circumflex arteries.

ectasia, calcifications, increased collaterals and thrombosis.^{2 3} There is lack of adequate evidence on the management (grade C).^{1 3} Antiplatelet and anticoagulant drugs are the mainstay of therapy to prevent thrombosis with subsequent surgical intervention depending on the complexity of the lesions.¹



Figure 1 Left anterior oblique cranial view demonstrating aneurysmal proximal right coronary artery with poor distal run-off.



Figure 3 Right anterior oblique cranial view demonstrating dilated and beaded appearance of left anterior descending artery.



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Learning points

- ▶ The report highlights a common manifestation of Kawasaki disease (KD) presenting without a prodromal illness.
- ▶ Also highlighted is the rare involvement of all three coronary arteries in the form of giant coronary artery aneurysms (CAA).
- ▶ We briefly elucidate on the presentation, diagnosis and management of CAA in KD with a focus on the need for further literature.

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in evaluation of the patient, drafting of the manuscript, literature review; Saraschandra Vallabhajosyula was involved in literature review, drafting and finalising of the manuscript, correspondence with the journal.

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